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# HEALTH STATISTICS

*FROM THE U. S. NATIONAL HEALTH SURVEY*

## LOSS OF TEETH

United States

July 1957 - June 1958

Statistics on persons who have lost all of their permanent teeth, by age, sex, residence, region, race, income, education, time interval since last dental visit, and volume of dental visits. Based on data collected in household interviews during July 1957-June 1958.

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The U. S. National Health Survey is a continuing program under which the Public Health Service makes studies to determine the extent of illness and disability in the population of the United States and to gather related information. It is authorized by Public Law 652, 84th Congress.

## CO-OPERATION OF THE BUREAU OF THE CENSUS

Under the legislation establishing the National Health Survey, the Public Health Service is authorized to use, insofar as possible, the services or facilities of other Federal, State, or private agencies. For the Health Interview Survey the Bureau of the Census designed and selected the sample, conducted the household interviews, and processed the data in accordance with specifications established by the Public Health Service.

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#### EXPLANATION OF SYMBOLS

Data not available (three dashes)-----	---
Category not applicable (three dots)-----	...
Quantity is zero (1 dash)-----	-
Magnitude greater than zero but less than one-half of the unit used-----	0 or 0.0
Magnitude of the sampling error precludes showing separate estimates-----	(*)

# LOSS OF TEETH

## SELECTED FINDINGS

Loss of teeth occurs most often as the result of two of the most common diseases affecting the American people—dental decay and periodontal disease. During his lifetime, nearly every person has one or both of these ailments, and when treatment is too long delayed, tooth loss results. Accrued tooth loss in individuals leads ultimately to edentulousness—total loss of permanent teeth—and the number and distribution of edentulous persons provide an index to both the prevalence of dental disease and the extent of dental neglect in the U. S. population.

Based on health interviews conducted by the U. S. National Health Survey during July 1957-June 1958, there were approximately 22 million edentulous persons in the United States—13 percent of the population of the Nation. A person was classified as edentulous if he had lost all of his permanent teeth, regardless of whether or not he wore dentures.

Only 4 percent of persons 25-34 years of age were edentulous, but the percent was higher in each succeeding age group, reaching 67 percent for persons 75 years of age and over. In each of the age groups, the proportion edentulous was slightly higher for women than for men.

Rural areas had a somewhat higher percent of edentulous persons than did urban areas and the proportion edentulous was substantially higher in the white population than in the nonwhite population.

In general, the proportion edentulous was smaller among members of high income families than among members of low income families, and smaller for persons in families where the head of the family had at least one year of college than for persons in families where the family head had less education.

## SOURCE OF DATA

The information contained in this report was obtained from nationwide household interviews conducted by the U. S. National Health Survey. The survey is continuous, each week covering a random sample of the civilian noninstitutional

population of the United States. This report is based on interviews obtained during the period July 1957-June 1958, during which time interviews were conducted in approximately 36,000 households and included about 115,000 persons.

A description of the survey design, methods used in estimation, and the general qualifications of the data is presented in Appendix I. Particular attention should be given to the section entitled Reliability of Estimates. Since the figures presented are estimates based on a sample of the population, they are subject to sampling error. Although the sampling errors for most of the estimates presented are of relatively low magnitude, where an estimated number or the numerator or denominator of a percent or rate is small, the sampling error may be high.

Definitions of terms used in the report are given in Appendix II. Some of the terms have specialized meaning and a familiarity with the definitions will assist the reader in interpreting the data presented.

The questionnaire used during July 1957-June 1958 is reproduced in Appendix III.

## EDENTULOUS PERSONS

Based on interviews conducted during July 1957-June 1958, U. S. National Health Survey data revealed that about 22 million persons, 13 percent of the population of the Nation, were edentulous.

This finding is based on responses to the question "Is there anyone in the family who has lost all of his teeth?" Persons who had lost all of their permanent teeth were classified as edentulous in the survey regardless of whether or not they wore dentures.

The proportion edentulous increased markedly with age, as would be expected. Virtually no one under 15 and only about 1 percent of those 15-24 years of age were edentulous. The proportion edentulous increased to 22 percent for those in the 45-54 year age group and increased to 67 percent for those 75 years of age and over.

The proportion edentulous was higher for women than for men in each of the separate age groups 25 years and above (fig. 1 and table 1). For all ages combined, 14 percent of the female population and 12 percent of the male population were edentulous.

The proportion of persons who are edentulous was higher among rural than among urban resi-

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*This report was prepared by Jane W. Bergsten, of the U. S. National Health Survey staff.*

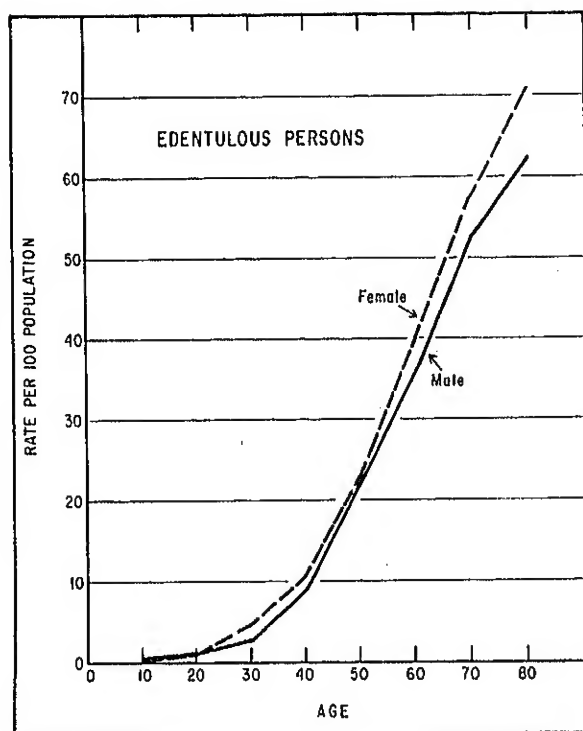


Figure 1. Rate of edentulous persons per 100 population by sex and age.

dents, as may be seen in figure 2. When the population was divided into more detailed residence groups, a clear relationship between the proportion of edentulous persons and degree of urbanization occurred among women in each of the separate age groups. In general, the proportion was lowest among women living "inside urbanized areas," and highest for rural-farm women. The relationship for men was not as pronounced (table 2).

Data on total number and percent of edentulous persons are presented for the four separate geographic regions of the Nation in table 3. The percent edentulous varied somewhat among the four regions. Within each of the separate age groups 25 years and over, residents of the Northeastern region had the lowest rate and those living in the North Central region had the highest rate of edentulous persons.

There were large differences between the two racial groups with respect to rates of edentulous persons. The proportion of the white population that had lost all of their permanent teeth was much higher than that for the nonwhite population. About 30 percent of white persons aged 45-64 were edentulous, as compared with only 17 percent of nonwhite persons. Corresponding figures for persons 65 years of age and over were 61 percent edentulous for the white population and 43 percent for the nonwhite population (fig. 3 and table 4).

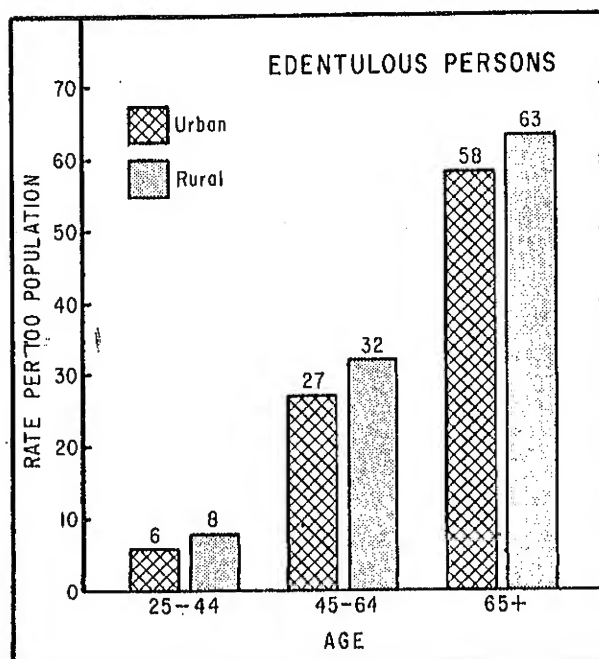


Figure 2. Rate of edentulous persons per 100 population by residence and age.

When the population of the Nation was classified according to family income, differences in the proportion of persons who were edentulous occurred among the various income groups. The higher the family income, the smaller the pro-

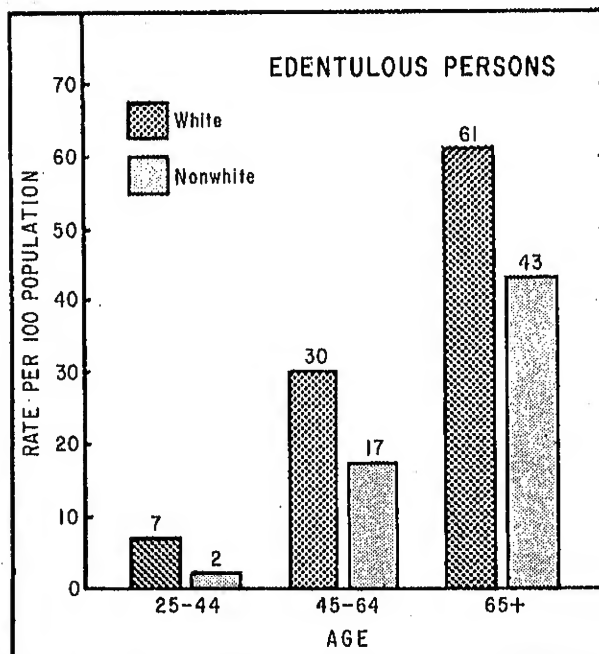


Figure 3. Rate of edentulous persons per 100 population by race and age.

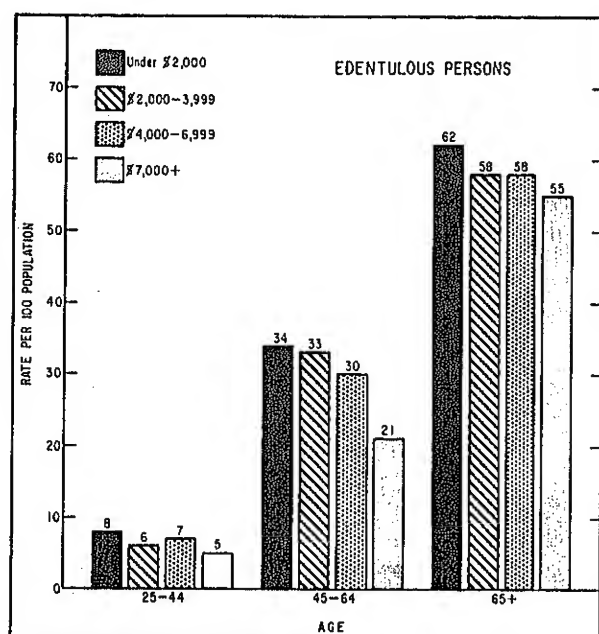


Figure 4. Rate of edentulous persons per 100 population by family income and age.

portion of persons in that income group who had lost all of their permanent teeth. Among persons 65 years of age and over, for example, 62 percent of persons in families with incomes under \$2,000 were edentulous as compared with 55 percent of persons in families with incomes \$7,000 and over (fig. 4 and table 5).

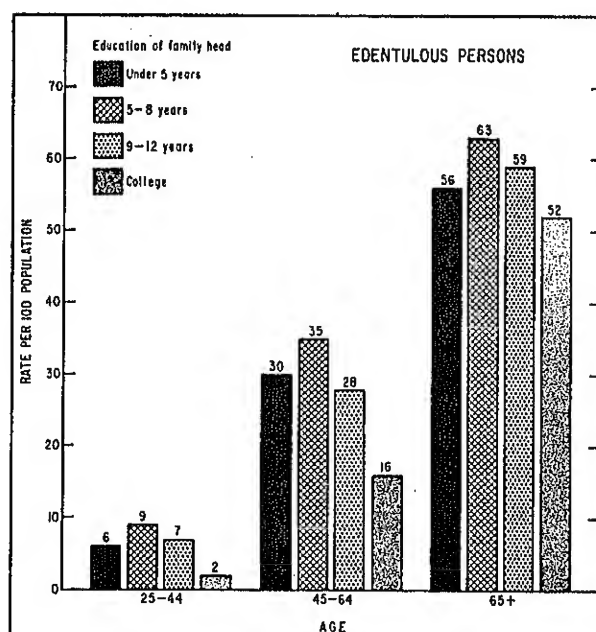


Figure 5. Rate of edentulous persons per 100 population by education of family head and age.

The percent edentulous was also computed for the different groups classified according to the educational attainment of the head of the family. As may be seen in figure 5 and table 6, the percent edentulous first increased and then dropped as the educational level of the family head increased. When family income and education of family head were cross-classified, the "low education-low income" group had the highest proportion edentulous and the "high education-high income" group had the lowest. The two remaining groups occupied middle positions (table 7).

### TIME INTERVAL SINCE LAST DENTAL VISIT AND RATE OF DENTAL VISITS

Edentulous persons and persons who had some or all of their natural teeth were classified according to the time interval since their last dental visit in tables 8 and 9 and figures 6 and 7. Any visit to a dentist for treatment or advice was considered to be a dental visit, regardless of whether the service was provided by a dentist himself or by a dental hygienist working under a dentist's supervision.

In each of the separate age groups, 25 years and over, the proportion of edentulous persons who had visited a dentist during the 1-year peri-

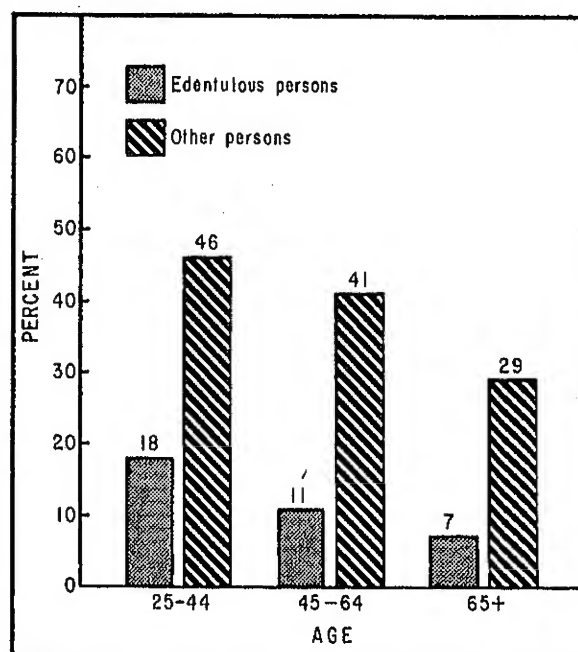


Figure 6. Percent of edentulous and other persons who visited the dentist within the past year by age.



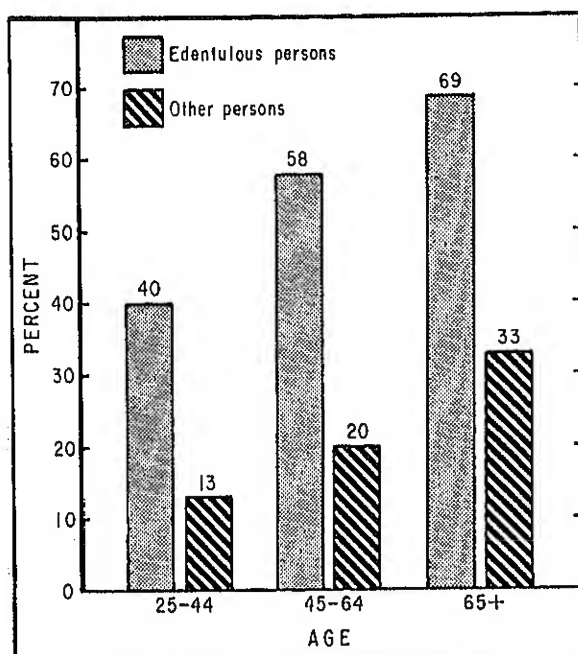


Figure 7. Percent of edentulous and other persons who had not visited a dentist within the past 5 years by age.

od prior to interview was substantially below that for the remainder of the population.

The proportion of edentulous persons visiting a dentist within the year decreased with age from 18 percent for persons 25-44 years of age to 7 percent for persons 65 years of age and over (fig. 6). The higher percent of persons with recent dental visits in the younger age groups is undoubtedly due to a comparatively larger proportion among the younger edentulous persons who only recently lost all of their teeth.

For both edentulous persons and persons who had their natural teeth, the percent who had not visited a dentist for 5 years or more increased with age. For edentulous persons the figures varied from 40 percent for persons 25-44 years of age to 69 percent for those 65 years of age and over. Corresponding figures for other persons were 13 percent and 33 percent (fig. 7).

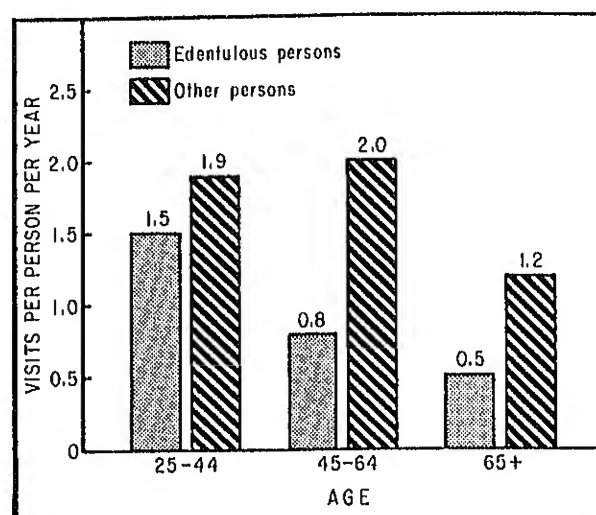


Figure 8. Number of dental visits per person per year for edentulous and other persons by age.

The rates of dental visits for edentulous persons also fell considerably below those for persons with natural teeth. While there was little difference in the rates for persons 25-44 years of age, the differences were considerably larger in the older age groups (fig. 8 and table 10). The decrease in rate of dental visits from 1.5 visits per person per year for those 25-44 years of age to 0.5 visits for those 65 years of age and over, is again probably related to the decrease in the proportion of persons who recently became edentulous. While dental visits for edentulous persons included such services as checkup, denture repair, gum treatment, and fittings for new dentures, they also included visits for tooth extraction and fitting of the initial set of full dentures for persons who recently lost all of their teeth. These latter services generally involve a number of dental visits. Consequently, at those ages where the proportion of persons who recently became edentulous is large, their dental visit rate would be expected to be relatively higher than in groups where persons had been edentulous for some time.

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Table 1. Number and percent of edentulous persons by sex and age: United States, July 1957-June 1958

[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1. Definitions of terms are given in Appendix II.]

Sex and age	Total population	Edentulous persons	
		Number (in thousands)	Percent of total population
<u>Both sexes</u>			
All ages-----	168,369	21,881	13.0
0-14-----	52,637	(*)	(*)
15-24-----	21,093	194	0.9
25-34-----	22,738	812	3.6
35-44-----	22,918	2,196	9.6
45-54-----	19,639	4,390	22.4
55-64-----	14,831	5,647	38.1
65-74-----	9,627	5,329	55.4
75+-----	4,886	3,287	67.3
<u>Male</u>			
All ages-----	81,906	9,730	11.9
0-14-----	26,839	(*)	(*)
15-24-----	9,801	91	0.9
25-34-----	10,859	277	2.6
35-44-----	11,026	968	8.8
45-54-----	9,592	2,103	21.9
55-64-----	7,147	2,565	35.9
65-74-----	4,511	2,383	52.8
75+-----	2,131	1,330	62.4
<u>Female</u>			
All ages-----	86,463	12,151	14.1
0-14-----	25,798	(*)	(*)
15-24-----	11,292	102	0.9
25-34-----	11,880	535	4.5
35-44-----	11,892	1,228	10.3
45-54-----	10,047	2,287	22.8
55-64-----	7,685	3,082	40.1
65-74-----	5,116	2,947	57.6
75+-----	2,755	1,957	71.0

Table 2. Number and rate per 100 population of edentulous persons by residence, sex, and age:  
United States, July 1957-June 1958

[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1. Definitions of terms are given in Appendix 11]

Sex and age	Residence						
	All areas	Urban			Rural		
		Total	Inside urbanized areas	Other urban places	Total	Nonfarm	Farm
Number of edentulous persons in thousands							
<u>Both sexes</u>							
All ages-----	21,881	13,332	9,130	4,202	8,548	5,570	2,978
0-24-----	220	130	91	(*)	90	51	(*)
25-44-----	3,008	1,629	1,095	534	1,379	917	461
45-64-----	10,037	6,219	4,372	1,848	3,818	2,445	1,373
65+-----	8,616	5,354	3,573	1,781	3,262	2,156	1,106
<u>Male</u>							
All ages-----	9,730	5,800	4,032	1,768	3,930	2,592	1,338
0-24-----	105	66	50	(*)	(*)	(*)	(*)
25-44-----	1,245	687	469	218	557	388	169
45-64-----	4,668	2,843	2,021	822	1,824	1,186	638
65+-----	3,713	2,203	1,491	713	1,509	998	511
<u>Female</u>							
All ages-----	12,151	7,532	5,099	2,434	4,618	2,978	1,641
0-24-----	115	64	41	(*)	50	(*)	(*)
25-44-----	1,763	942	626	316	821	529	292
45-64-----	5,370	3,376	2,350	1,026	1,994	1,259	735
65+-----	4,903	3,150	2,082	1,068	1,753	1,158	595
Rate per 100 population							
<u>Both sexes</u>							
All ages-----	13.0	12.9	12.3	14.7	13.1	12.6	14.1
0-24-----	0.3	0.3	0.3	(*)	0.3	0.2	(*)
25-44-----	6.6	5.7	5.2	7.3	8.0	7.3	9.7
45-64-----	29.1	27.4	26.1	31.0	32.5	32.6	32.4
65+-----	59.4	57.6	56.0	60.9	62.6	64.1	59.9
<u>Male</u>							
All ages-----	11.9	11.8	11.3	13.1	12.0	11.8	12.3
0-24-----	0.3	0.3	0.3	(*)	(*)	(*)	(*)
25-44-----	5.7	5.1	4.7	6.3	6.6	6.4	7.2
45-64-----	27.9	26.4	25.3	29.6	30.6	32.1	28.2
65+-----	55.9	54.5	53.1	57.7	58.1	61.4	52.6
<u>Female</u>							
All ages-----	14.1	14.0	13.1	16.3	14.2	13.3	16.2
0-24-----	0.3	0.3	0.3	(*)	0.3	(*)	(*)
25-44-----	7.4	6.3	5.7	8.3	9.2	8.2	12.0
45-64-----	30.3	28.2	26.8	32.3	34.5	33.1	37.2
65+-----	62.3	59.9	58.4	63.2	67.1	66.6	68.1

Table 3. Number and rate per 100 population of edentulous persons by region, sex, and age:  
United States, July 1957-June 1958

[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix 1. Definitions of terms are given in Appendix 11]

Sex and age	Region				
	All regions	Northeast	North Central	South	West
Number of edentulous persons in thousands					
<u>Both sexes</u>					
All ages-----	21,881	5,256	7,248	6,366	3,011
0-24-----	220	51	68	76	(*)
25-44-----	3,008	682	1,048	814	464
45-64-----	10,037	2,498	3,240	2,983	1,316
65+-----	8,616	2,024	2,892	2,492	1,208
<u>Male</u>					
All ages-----	9,730	2,236	3,275	2,833	1,387
0-24-----	105	(*)	41	(*)	(*)
25-44-----	1,245	299	442	328	175
45-64-----	4,668	1,116	1,510	1,406	636
65+-----	3,713	793	1,282	1,072	566
<u>Female</u>					
All ages-----	12,151	3,020	3,973	3,533	1,624
0-24-----	115	(*)	(*)	50	(*)
25-44-----	1,763	383	605	487	289
45-64-----	5,370	1,383	1,730	1,577	680
65+-----	4,903	1,231	1,610	1,420	642
Rate per 100 population					
<u>Both sexes</u>					
All ages-----	13.0	12.5	14.4	12.3	12.5
0-24-----	0.3	0.3	0.3	0.3	(*)
25-44-----	6.6	5.7	7.7	6.1	6.8
45-64-----	29.1	25.0	32.0	30.3	29.2
65+-----	59.4	53.5	62.1	61.1	60.5
<u>Male</u>					
All ages-----	11.9	10.9	13.2	11.3	12.0
0-24-----	0.3	(*)	0.4	(*)	(*)
25-44-----	5.7	5.3	6.7	5.2	5.4
45-64-----	27.9	23.1	30.2	29.8	28.8
65+-----	55.9	48.9	58.7	57.1	59.3
<u>Female</u>					
All ages-----	14.1	14.0	15.5	13.2	13.1
0-24-----	0.3	(*)	(*)	0.4	(*)
25-44-----	7.4	6.2	8.6	6.9	8.1
45-64-----	30.3	26.8	33.7	30.7	29.5
65+-----	62.3	57.1	65.1	64.6	61.6

Table 4. Number and rate per 100 population of edentulous persons by race and age: United States, July 1957-June 1958

[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]

Age	Race					
	All races	White	Nonwhite	All races	White	Nonwhite
	Number of edentulous persons in thousands			Rate per 100 population		
All ages-----	21,881	20,786	1,095	13.0	13.9	5.9
0-24-----	220	200	(*)	0.3	0.3	(*)
25-44-----	3,008	2,893	114	6.6	7.1	2.4
45-64-----	10,037	9,508	529	29.1	30.3	17.0
65+-----	8,616	8,184	432	59.4	60.6	43.1

Table 5. Number and rate per 100 population of edentulous persons by family income and age: United States, July 1957-June 1958

(See headnote on table 4)

Age	Family income					
	Total	Under \$2,000	\$2,000-3,999	\$4,000-6,999	\$7,000+	Unknown
	Number of edentulous persons in thousands					
All ages-----	21,881	6,015	4,968	6,143	3,037	1,718
0-24-----	220	(*)	43	83	(*)	(*)
25-44-----	3,008	332	570	1,422	534	150
45-64-----	10,037	1,886	2,443	3,233	1,659	816
65+-----	8,616	3,759	1,911	1,404	804	738
	Rate per 100 population					
All ages-----	13.0	23.6	13.8	9.9	8.8	17.1
0-24-----	0.3	(*)	0.3	0.3	(*)	(*)
25-44-----	6.6	7.8	6.5	7.2	4.9	7.1
45-64-----	29.1	34.3	32.7	30.2	20.8	29.2
65+-----	59.4	62.4	58.4	58.1	55.4	54.7

Table 6. Number and rate per 100 population of edentulous persons by education of family head and age: United States, July 1957-June 1958

[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]

Age	Education of family head					
	All educational groups	Under 5 years	5-8 years	9-12 years	College	Unknown
Number of edentulous persons in thousands						
All ages-----	21,881	2,442	9,894	7,044	1,757	744
0-24-----	220	(*)	67	107	(*)	(*)
25-44-----	3,008	139	1,002	1,594	207	66
45-64-----	10,037	992	4,715	3,223	784	324
65+-----	8,616	1,281	4,109	2,120	752	352
Rate per 100 population						
All ages-----	13.0	19.0	19.6	9.7	6.2	18.3
0-24-----	0.3	(*)	0.3	0.3	(*)	(*)
25-44-----	6.6	6.0	9.2	7.1	2.3	8.5
45-64-----	29.1	29.8	35.1	27.8	15.6	29.6
65+-----	59.4	55.9	63.2	58.5	51.6	55.1

Table 7. Number and rate per 100 population of edentulous persons by family income, education of family head, and age: United States, July 1957-June 1958

(See headnote on table 6)

Age	Total	Family income and education of family head				Income or education unknown
		Under \$4,000		\$4,000+		
		Under 9 years	9+ years	Under 9 years	9+ years	
Number of edentulous persons in thousands						
All ages-----	21,881	7,638	2,978	3,855	5,136	2,274
0-24-----	220	46	(*)	46	77	(*)
25-44-----	3,008	494	381	589	1,341	202
45-64-----	10,037	3,048	1,148	2,279	2,511	1,052
65+-----	8,616	4,049	1,415	941	1,207	1,004
Rate per 100 population						
All ages-----	13.0	21.9	12.0	15.6	7.2	17.4
0-24-----	0.3	0.3	(*)	0.5	0.2	(*)
25-44-----	6.6	7.8	5.9	9.6	5.6	7.4
45-64-----	29.1	35.3	29.3	33.0	22.0	29.3
65+-----	59.4	62.3	58.3	58.6	56.0	55.1

Table 8. Number of edentulous and other persons by time interval since last dental visit, sex, and age: United States, July 1957-June 1958

[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II.]

Edentulous and other persons, sex, and age	Time interval since last dental visit							
	Total	Less than 6 months	6-11 months	1 year	2-4 years	5 years or over	Never	Unknown
EDENTULOUS PERSONS								
Number of edentulous and other persons in thousands								
<u>Both sexes</u>								
All ages-----	21,881	1,452	903	1,515	4,061	12,940	86	924
0-24-----	220	41	44	(*)	62	(*)	(*)	(*)
25-44-----	3,008	311	223	357	875	1,200	(*)	(*)
45-64-----	10,037	693	416	732	2,061	5,809	(*)	308
65+-----	8,616	406	220	389	1,063	5,919	42	577
<u>Male</u>								
All ages-----	9,730	658	393	679	1,829	5,693	41	436
0-24-----	105	(*)	(*)	(*)	(*)	(*)	(*)	(*)
25-44-----	1,245	122	92	151	380	480	(*)	(*)
45-64-----	4,668	331	184	350	995	2,628	(*)	165
65+-----	3,713	184	96	162	422	2,580	(*)	253
<u>Female</u>								
All ages-----	12,151	793	509	836	2,233	7,247	45	487
0-24-----	115	(*)	(*)	(*)	(*)	(*)	(*)	(*)
25-44-----	1,763	189	131	206	495	720	(*)	(*)
45-64-----	5,370	362	232	382	1,067	3,180	(*)	143
65+-----	4,903	222	124	228	641	3,339	(*)	324
OTHER PERSONS								
<u>Both sexes</u>								
All ages-----	146,488	36,963	22,344	22,130	20,066	11,563	30,308	3,113
0-24-----	73,510	17,837	10,102	9,183	5,926	1,238	28,299	925
25-44-----	42,649	11,667	7,962	8,301	8,157	4,347	1,130	1,084
45-64-----	24,433	6,327	3,691	3,912	4,812	4,325	568	798
65+-----	5,896	1,132	589	734	1,171	1,653	311	306
<u>Male</u>								
All ages-----	72,175	16,853	10,518	10,910	10,103	6,078	15,779	1,936
0-24-----	36,535	8,290	4,851	4,551	3,058	655	14,591	540
25-44-----	20,640	5,140	3,667	4,038	4,038	2,376	639	742
45-64-----	12,071	2,896	1,711	1,958	2,434	2,213	357	503
65+-----	2,929	527	289	363	573	833	192	151
<u>Female</u>								
All ages-----	74,313	20,110	11,827	11,220	9,962	5,485	14,530	1,178
0-24-----	36,975	9,547	5,251	4,632	2,868	583	13,708	385
25-44-----	22,008	6,528	4,295	4,264	4,119	1,971	491	342
45-64-----	12,362	3,431	1,980	1,954	2,378	2,112	212	295
65+-----	2,968	605	301	371	598	820	119	155



Table 9. Percent distribution of edentulous and other persons by time interval since last dental visit according to sex and age: United States, July 1957-June 1958

[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]

Edentulous and other persons, sex, and age	Time interval since last dental visit							
	Total	Less than 6 months	6-11 months	1 year	2-4 years	5 years or over	Never	Unknown
<b>EDENTULOUS PERSONS</b>								
<u>Both sexes</u>								
All ages-----	100.0	6.6	4.1	6.9	18.6	59.1	0.4	4.2
0-24-----	100.0	18.6	20.0	(*)	28.2	(*)	(*)	(*)
25-44-----	100.0	10.3	7.4	11.9	29.1	39.9	(*)	(*)
45-64-----	100.0	6.9	4.1	7.3	20.5	57.9	(*)	3.1
65+-----	100.0	4.7	2.6	4.5	12.3	68.7	0.5	6.7
<u>Male</u>								
All ages-----	100.0	6.8	4.0	7.0	18.8	58.5	0.4	4.5
0-24-----	100.0	(*)	(*)	(*)	(*)	(*)	(*)	(*)
25-44-----	100.0	9.8	7.4	12.1	30.5	38.6	(*)	(*)
45-64-----	100.0	7.1	3.9	7.5	21.3	56.3	(*)	3.5
65+-----	100.0	5.0	2.6	4.4	11.4	69.5	(*)	6.8
<u>Female</u>								
All ages-----	100.0	6.5	4.2	6.9	18.4	59.6	0.4	4.0
0-24-----	100.0	(*)	(*)	(*)	(*)	(*)	(*)	(*)
25-44-----	100.0	10.7	7.4	11.7	28.1	40.8	(*)	(*)
45-64-----	100.0	6.7	4.3	7.1	19.9	59.2	(*)	2.7
65+-----	100.0	4.5	2.5	4.7	13.1	68.1	(*)	6.6
<b>OTHER PERSONS</b>								
<u>Both sexes</u>								
All ages-----	100.0	25.2	15.3	15.1	13.7	7.9	20.7	2.1
0-24-----	100.0	24.3	13.7	12.5	8.1	1.7	38.5	1.3
25-44-----	100.0	27.4	18.7	19.5	19.1	10.2	2.6	2.5
45-64-----	100.0	25.9	15.1	16.0	19.7	17.7	2.3	3.3
65+-----	100.0	19.2	10.0	12.4	19.9	28.0	5.3	5.2
<u>Male</u>								
All ages-----	100.0	23.4	14.6	15.1	14.0	8.4	21.9	2.7
0-24-----	100.0	22.7	13.3	12.5	8.4	1.8	39.9	1.5
25-44-----	100.0	24.9	17.8	19.6	19.6	11.5	3.1	3.6
45-64-----	100.0	24.0	14.2	16.2	20.2	18.3	3.0	4.2
65+-----	100.0	18.0	9.9	12.4	19.6	28.4	6.6	5.2
<u>Female</u>								
All ages-----	100.0	27.1	15.9	15.1	13.4	7.4	19.6	1.6
0-24-----	100.0	25.8	14.2	12.5	7.8	1.6	37.1	1.0
25-44-----	100.0	29.7	19.5	19.4	18.7	9.0	2.2	1.6
45-64-----	100.0	27.8	16.0	15.8	19.2	17.1	1.7	2.4
65+-----	100.0	20.4	10.1	12.5	20.1	27.6	4.0	5.2

Table 10. Number of dental visits and number of dental visits per person per year for edentulous and other persons by sex and age: United States, July 1957-June 1958

[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]

Sex and age	Total	Edentulous persons	Other persons	Total	Edentulous persons	Other persons
	Number of dental visits in millions			Number of dental visits per person per year		
<u>Both sexes</u>						
All ages-----	269.2	17.5	251.7	1.6	0.8	1.7
0-24-----	115.5	(*)	115.0	1.6	(*)	1.6
25-44-----	84.6	4.5	80.1	1.9	1.5	1.9
45-64-----	58.2	8.4	49.8	1.7	0.8	2.0
65+-----	11.0	4.2	6.8	0.8	0.5	1.2
<u>Male</u>						
All ages-----	114.7	6.8	107.9	1.4	0.7	1.5
0-24-----	50.3	(*)	50.0	1.4	(*)	1.4
25-44-----	33.8	(*)	32.4	1.5	(*)	1.6
45-64-----	25.1	3.3	21.8	1.5	0.7	1.8
65+-----	5.5	(*)	3.6	0.8	(*)	1.2
<u>Female</u>						
All ages-----	154.6	10.8	143.8	1.8	0.9	1.9
0-24-----	65.2	(*)	65.0	1.8	(*)	1.8
25-44-----	50.8	3.1	47.7	2.1	1.7	2.2
45-64-----	33.1	5.1	28.0	1.9	0.9	2.3
65+-----	5.6	(*)	3.2	0.7	(*)	1.1

Table 11. Population used in obtaining rates shown in this publication by residence, sex, and age: United States, July 1957-June 1958

[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]

Sex and age	Residence						
	All areas	Urban			Rural		
		Total	Inside urbanized areas	Other urban places	Total	Nonfarm	Farm
Population in thousands							
<u>Both sexes</u>							
All ages-----	168,369	102,985	74,492	28,493	65,384	44,334	21,049
0-24-----	73,730	42,607	30,280	12,327	31,123	20,939	10,184
25-44-----	45,656	28,347	21,064	7,282	17,310	12,532	4,777
45-64-----	34,470	22,729	16,770	5,959	11,741	7,499	4,242
65+-----	14,512	9,303	6,378	2,925	5,210	3,364	1,846
<u>Male</u>							
All ages-----	81,906	49,098	35,567	13,530	32,808	21,905	10,903
0-24-----	36,640	20,825	14,766	6,059	15,815	10,493	5,322
25-44-----	21,885	13,453	9,998	3,455	8,431	6,087	2,344
45-64-----	16,739	10,774	7,994	2,780	5,965	3,700	2,265
65+-----	6,641	4,045	2,810	1,236	2,596	1,625	971
<u>Female</u>							
All ages-----	86,463	53,888	38,925	14,963	32,576	22,429	10,146
0-24-----	37,089	21,782	15,514	6,268	15,308	10,445	4,862
25-44-----	23,772	14,893	11,066	3,827	8,878	6,445	2,433
45-64-----	17,731	11,955	8,776	3,179	5,776	3,799	1,977
65+-----	7,871	5,257	3,568	1,689	2,614	1,740	874

NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States, in Current Population Reports: Series P-20, P-25, P-50, P-57, and P-60.

Table 12. Population used in obtaining rates shown in this publication by region, sex, and age:  
United States, July 1957-June 1958

[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]

Sex and age	Region				
	All regions	Northeast	North Central	South	West
Population in thousands					
<u>Both sexes</u>					
All ages-----	168,369	42,125	50,340	51,903	24,001
0-24-----	73,730	16,495	21,971	24,596	10,667
25-44-----	45,656	11,870	13,583	13,379	6,824
45-64-----	34,470	9,978	10,128	9,851	4,513
65+-----	14,512	3,781	4,657	4,078	1,997
<u>Male</u>					
All ages-----	81,906	20,487	24,722	25,120	11,577
0-24-----	36,640	8,358	10,968	12,167	5,148
25-44-----	21,885	5,680	6,573	6,362	3,270
45-64-----	16,739	4,825	4,997	4,712	2,205
65+-----	6,641	1,623	2,184	1,879	955
<u>Female</u>					
All ages-----	86,463	21,637	25,618	26,783	12,425
0-24-----	37,089	8,137	11,004	12,429	5,519
25-44-----	23,772	6,190	7,010	7,016	3,555
45-64-----	17,731	5,153	5,131	5,139	2,308
65+-----	7,871	2,157	2,473	2,198	1,042

NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States, in Current Population Reports: Series P-20, P-25, P-50, P-57, and P-60.

Table 13. Population used in obtaining rates shown in this publication by age and demographic characteristic: United States, July 1957-June 1958

[Data are based on household interviews during July 1957-June 1958. Data refer to the civilian noninstitutional population of the United States. Detailed figures may not add to totals due to rounding. The survey design, general qualifications, and information on the reliability of the estimates are given in Appendix I. Definitions of terms are given in Appendix II]

Characteristic	Age				
	All ages	0-24	25-44	45-64	65+
Population in thousands					
Total persons-----	168,369	73,730	45,656	34,470	14,512
<u>Race</u>					
White-----	149,810	64,074	40,868	31,357	13,511
Nonwhite-----	18,559	9,656	4,788	3,114	1,002
<u>Family income</u>					
Under \$2,000-----	25,459	9,654	4,282	5,499	6,024
\$2,000-3,999-----	36,051	16,488	8,811	7,481	3,272
\$4,000-6,999-----	62,248	29,475	19,634	10,722	2,417
\$7,000+-----	34,549	14,323	10,804	7,972	1,451
Unknown-----	10,062	3,791	2,126	2,797	1,349
<u>Education of family head</u>					
Under 5 years-----	12,836	4,914	2,305	3,326	2,292
5-8 years-----	50,497	19,738	10,843	13,415	6,501
9-12 years-----	72,483	34,684	22,565	11,611	3,623
College-----	28,485	12,840	9,165	5,023	1,457
Unknown-----	4,067	1,554	778	1,095	639
<u>Family income and education of family head</u>					
<u>Under \$4,000</u>					
Under 9 years-----	34,822	13,394	6,304	8,623	6,501
9+ years-----	24,853	12,041	6,461	3,923	2,428
<u>\$4,000+</u>					
Under 9 years-----	24,633	10,007	6,122	6,897	1,607
9+ years-----	70,971	33,360	24,022	11,434	2,155
Unknown-----	13,090	4,928	2,747	3,593	1,821

NOTE: For official population estimates for more general use, see Bureau of the Census reports on the civilian population of the United States, in Current Population Reports: Series P-20, P-25, P-50, P-57, and P-60.



## APPENDIX I

### TECHNICAL NOTES ON METHODS

#### Background of This Report

This report on Loss of Teeth is one of a series of statistical reports which cover separate health-related topics prepared by the U. S. National Health Survey. The report is based on information collected in the continuing nationwide sample Health Interview Survey, which is a main aspect of the program.

The Health Interview Survey uses a questionnaire which, in addition to personal and demographic characteristics, requests information on illnesses, injuries, chronic conditions, medical care, dental care, and hospitalization. As interview data relating to each of these various broad subject areas are tabulated and analyzed, separate reports are issued covering one or more specific topics. The present report on edentulous persons is based on the consolidated sample for 52 weeks of interviewing ending June 29, 1958.

The population covered by the sample for the Health Interview Survey is the civilian population of the United States living at the time of the household interview. Although the sample collection covers persons living as inmates of resident-type institutions, data for these persons are not included in the figures given in these reports. The sample does not include members of the Armed Forces, United States nationals living in foreign countries, and crews of vessels. It should also be noted that the estimates of dental visits shown do not represent a complete inventory of dental visits for any specified calendar period since no adjustment has been made for persons who had dental visits during the reference period and who were not living at the time of the household interview—a time lapse of two weeks.

#### Statistical Design of the Health Interview Survey

General plan.—The sampling plan of the survey follows a multistage probability design which permits a continuous sampling of the civilian population of the United States. The first stage of this design consists of an area sample of 372 from among approximately 1,900 geographically defined Primary Sampling Units (PSU's) into which the United States has been divided. A PSU is a county, a group of contiguous counties, or a Standard Metropolitan Statistical Area.

With no loss in general understanding, the remaining stages can be telescoped and treated in this discussion as an ultimate stage. Within PSU's, then, ultimate stage units called segments are defined, also geographically, in such a manner that each segment contains an expected six households in the sample. Each week a random sample of about 120 segments is drawn. In the approximately 700 households in those segments persons are interviewed concerning illnesses, injuries, chronic conditions, disability, and other factors related to health.

The household members interviewed each week are a representative sample of the population so that sam-

ples for successive weeks can be combined into larger samples for, say a calendar quarter, or a year. Thus the design permits both continuous measurement of characteristics of high incidence or prevalence in the population, and through the larger consolidated samples more detailed analysis of less common characteristics and smaller categories. The continuous collection has administrative and operational advantages, as well as technical assets, since it permits field work to be handled with an experienced, stable staff.

Sample size and geographic detail.—The national sample plan over a 12-month period includes approximately 115,000 persons from 36,000 households in 6,000 segments, with representation from every State. The over-all sample was designed in such a fashion, that from the annual sample, tabulations can be provided for various geographic sections of the United States and for urban and rural sectors of the Nation.

Collection of data.—The field operations for the household survey are performed by the Bureau of the Census under specifications established by the Public Health Service. In accordance with these specifications the Bureau of the Census designs and selects the sample, conducts the field interviewing, and edits and codes the questionnaires. Tabulations are prepared by the Public Health Service using the Bureau of the Census electronic computers.

Estimating methods.—Each statistic produced by the survey—for example, the number of edentulous persons—is the result of two stages of ratio estimation. In the first of these, the ratio factor is 1950 decennial population count to estimated population for 1950 for the U. S. National Health Survey's first-stage sample of PSU's. These factors are applied separately for more than 50 color-residence classes.

Later, ratios of sample-produced estimates of the population to official Bureau of the Census figures for current population in 76 age-sex-color classes are computed, and serve as second-stage factors for ratio estimating.

The effect of the ratio estimating process is to make the sample more closely representative of the population by age, sex, color, and residence, thus reducing sampling variance.

For prevalence statistics, such as number of edentulous persons, figures are first calculated for each calendar quarter by averaging estimates for all weeks of interviewing in that quarter. Prevalence data for a year are then obtained by averaging the four quarterly figures.

For statistics measuring the number of occurrences during a specified time period, such as number of dental visits, a similar computational procedure is used, but the statistics have a different interpretation. For one of the dental visits items, the questionnaire asks for the respondent's experience over the two calendar weeks prior to the week of interview. In such instances, the estimated quarterly total for the statistic is simply 6.5 times the average two-week estimate produced by the 13 successive samples taken during the quarter.

The annual total is the sum of the four quarters. Thus, the experience of persons interviewed during a year—experience which actually occurred for each person in a two-calendar-week interval prior to week of interview—is treated in analysis as though it measured the total of such experience occurring in the year. Such interpretation leads to no significant bias.

The interviewing and estimation procedure, as noted earlier, are designed to reproduce the experience in the reference period of the questionnaire for the population living at the time of interview.

### General Qualifications

**Nonresponse.**—Data were adjusted for nonresponse by a procedure which imputed to persons in a household not interviewed the characteristics of interviewed persons in the same segment. The total noninterview rate was 6 percent; 1 percent was refusal, and the remainder was accounted for by all other reasons, such as failure to find any household respondent after repeated trials.

**The interview process.**—The statistics presented in this report are based on replies secured in interviews of persons in the sampled households. Each person 18 years and over, available at the time of interview, was interviewed individually. Proxy respondents within the household were employed for children and for adults not available at the time of the interview, provided the respondent was closely related to the person about whom information was being obtained.

**Rounding of numbers.**—The original tabulations on which data in this report are based show all estimates to the nearest whole unit. All consolidations were made from the original tabulations using the estimates to the nearest unit. In the final published tables the figures are rounded to the nearest thousand or tenth of million. Because of sampling error, however, they are not necessarily accurate to that detail. Derived statistics such as rates and percent distributions are computed after the estimates on which they are based have been rounded to the nearest thousand.

**Population figures.**—Some of the published tables include population figures for specified categories. Except for certain over-all totals by age, sex, and color, (which are adjusted to independent estimates), these figures are based on the sample of households in the U. S. National Health Survey. They are given primarily for the purpose of providing denominators for rate computation, and for this purpose are more appropriate for use with the accompanying measures of health characteristics than other population data that may be available. In some instances they will permit users to recombine published data into classes more suitable to their specific needs. With the exception of the over-all totals by age, sex, and color, mentioned above, the population figures may in some cases differ from corresponding figures (which are derived from different sources) published in reports of the Bureau of the Census. For population data for general use, see the official estimates presented in Bureau of the Census reports in the P-20, P-25, P-50, P-57, and P-60 series.

### Reliability of Estimates

Since the estimates are based on a sample, they will differ somewhat from the figures that would have been obtained if a complete census had been taken using the same schedules, instructions, and interviewing personnel and procedures. As in any survey, the results are also subject to measurement error.

The standard error is primarily a measure of sampling variability, that is, the variations that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the standard error also reflects part of the variation which arises in the measurement process. It does not include estimates of any biases which might lie in the data. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference would be less than twice the standard error and about 99 out of 100 that it would be less than 2½ times as large.

The estimates of standard errors shown in tables I and II are approximations for the 372-area sample and may be used by the reader to determine standard errors for the statistics presented in this report.

Table I. Standard errors of estimates of aggregates

(All numbers shown in thousands)		
Size of estimate	Standard error	
	Number of persons in a population group (a)	Number of dental visits (b)
100	22	...
500	50	...
1,000	70	430
2,000	100	600
3,000	120	750
5,000	160	1,000
10,000	220	1,300
20,000	300	1,900
30,000	330	2,250
50,000	350	3,000
100,000	400	4,500
200,000	...	6,500
500,000	...	11,250
750,000	...	14,700
1,250,000	...	20,750

**Illustration of use of table I.**—The number of edentulous women in the Nation was 12,151,000. Since this is an estimate of an aggregate and designates the number of persons in a population group, column (a) of table I is appropriate. Reading from this column, a statistic of 10,000,000 has a standard error of 220,000 and a statistic of 20,000,000 has a standard error of 300,000. Interpolating between these values, the appropriate standard error of the estimated 12,151,000 is 237,000.

In order to derive standard errors which would be applicable to a wide variety of health statistics and which could be prepared at a moderate cost, a number of approximations were required. As a result, the tables of standard errors shown in this report should be interpreted as providing an estimate of approximate standard error rather than as the precise standard error for any specific statistic.



The following guides will enable the reader to determine the sampling errors for the data contained in this report.

1. Approximate standard errors for estimates of the number of dental visits and the number of persons in a population group<sup>1</sup> are obtained from the appropriate columns of table I.
2. Approximate standard errors for percentage distributions of dental visits or of persons in a population group<sup>1</sup> are given in table II.
3. A rough approximation of the standard errors for rates showing the number of dental visits per person per year for edentulous and for other persons<sup>2</sup> are obtained by

<sup>1</sup>The number and percentage distribution of persons in an age, sex, or color group, or the total number of persons in the population are not subject to sampling error because of adjustment to official Bureau of the Census figures.

<sup>2</sup>Note that where the rate refers to a group of persons with a specific characteristic obtained from the survey (e.g., edentulous persons), rule 3 applies, even if the group is further subdivided by age, sex, or color.

taking the square root of the sum of the squares of the standard error of the numerator used in obtaining the rate divided by the numerator itself and the standard error of the denominator used divided by the denominator itself, and then multiplying by the rate. This computation will normally give an overestimation of the true sampling error. Example: The number of dental visits per person per year for edentulous persons 45-64 years of age is 0.8 visits. The numerator used in obtaining the rate is 8,400,000 visits (table 10), and the denominator is 10,037,000 persons (table 2). The standard error of the numerator is 1,204,000 visits (from Appendix table I), and the standard error of the denominator is 220,000 persons (from Appendix table I). Carrying out the computations for

$$0.8 \times \sqrt{\left(\frac{1,204,000}{8,400,000}\right)^2 + \left(\frac{220,000}{10,037,000}\right)^2}$$

gives 0.1 as the approximate standard error for a rate of 0.8 visits.

Table II. Standard errors of estimated percentages based on number of persons in a population group or number of dental visits (body of table expressed in percentage points)

Estimated percentage	Base of percentage (base is shown in thousands)										
	100	500	1,000	2,000	3,000	5,000	10,000	20,000	30,000	50,000	100,000
Population group	2,500	12,500	25,000	50,000	75,000	125,000	250,000	500,000	750,000	1,250,000	...
Dental visits											
2 or 98-----	3.6	1.6	1.1	0.8	0.7	0.5	0.4	0.3	0.2	0.2	0.1
5 or 95-----	5.6	2.5	1.8	1.3	1.0	0.8	0.6	0.4	0.3	0.3	0.2
10 or 90-----	6.8	3.0	2.1	1.5	1.2	1.0	0.7	0.5	0.4	0.3	0.2
25 or 75-----	9.8	4.4	3.1	2.2	1.8	1.4	1.0	0.7	0.6	0.4	0.3
50-----	12.9	5.8	4.1	2.9	2.4	1.8	1.3	0.9	0.7	0.6	0.4

Illustration of use of table II.—Of the 269,200,000 dental visits made during July 1957-June 1958, 7 percent were made by edentulous persons. Since this is a percentage based on dental visits, table II is appropriate. Since neither of these values can be read directly from the table, interpolation may be carried out as follows: for a base of 250,000,000 a statistic of 5 percent has a standard error of 0.6 percentage points, and a statistic of 10 percent has a standard error of 0.7 percentage point. Interpolating, with a base of 250,000,000 a statistic of 7 percent would have a standard error of 0.64 percentage points. Corresponding calculations with a base of 500,000,000 produce a standard error of 0.44 percentage points. A final interpolation between these two results yields an estimated 0.62 percentage points which rounds to 0.6 as the approximate standard error for a statistic of 7 percent with a base of 269,200,000. Interpolation has been carried out in two dimensions in the example. For most purposes, a simple scanning of the table will reveal an approximate answer which is sufficiently precise.

## APPENDIX II

### DEFINITIONS OF CERTAIN TERMS USED IN THIS REPORT

#### Dental Care Terms

Edentulous persons.—Persons who have lost all of their permanent teeth are classed as edentulous persons. An edentulous person may have dentures but does not have any natural teeth.

Dental visits.—Each visit to a dentist's office for treatment or advice is considered to be a dental visit. The visit may involve services provided directly by the dentist or by a dental hygienist acting under a dentist's supervision. Services provided while a person was a patient in a hospital for overnight or longer are not considered to be dental visits.

Time interval since last dental visit.—The interval since the last dental visit is the length of time prior to the week of interview since a dentist or dental hygienist was last visited for treatment or advice of any type.

The interval is recorded to the nearest month for periods of a month or more but less than a year, and to the nearest year for periods of a year or more.

#### Demographic, Social, and Economic Terms

Age.—The age recorded for each person is the age at last birthday. Age is recorded in single years and grouped in a variety of distributions depending upon the purpose of the table.

Race.—In this report, the population has been subdivided into two groups according to race, "White" and "Nonwhite." "Nonwhite" includes Negro, American Indian, Chinese, Japanese, and so forth. Mexican persons are included with "White" unless definitely known to be Indian or other nonwhite race.

Family income.—Each member of a family is classified according to the total income of the family of which he is a member. Within the household all persons related to each other by blood, marriage, or adoption constitute a family. Unrelated individuals are classified according to their own income.

The income recorded is the total of all income received by members of the family (or by an unrelated individual) in the 12-month period ending with the week of interview. Income from all sources is included, e.g., wages, salaries, rents from property, pensions, help from relatives, and so forth.

Education of family head.—Each member of a family is classified according to the education of the head of the family of which he is a member. Within the household all persons related to each other by blood, marriage, or adoption constitute a family. Unrelated individuals are classified according to their own education.

The categories of educational status show the highest grade of school completed. Only grades completed in regular schools, where persons are given a formal education, are included. A "regular" school is one which advances a person toward an elementary or high school diploma, or a college, university, or professional school degree. Thus, education in vocational, trade, or

business schools outside the regular school system is not counted in determining the highest grade of school completed.

#### Location of Residence Terms

Urban residence.—The definition of urban areas used in the U. S. National Health Survey is the same as that used in the 1950 Census. According to this definition, the urban population comprises all persons living in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, and villages; (b) incorporated towns of 2,500 inhabitants or more except in New England, New York, and Wisconsin, where "Towns" are simply minor civil divisions of counties; (c) the densely settled urban fringe, including both incorporated and unincorporated areas around cities of 50,000 or more; and (d) unincorporated places of 2,500 inhabitants or more outside any urban fringe.

In this report, the urban population has been subdivided into those living "Inside urbanized areas" and those living in "Other urban places."

Inside urbanized areas.—Following the definition used in the 1950 Census, the population in urbanized areas comprises all persons living in (a) cities of 50,000 inhabitants or more in 1940 or according to a special census taken between 1940 and 1950; and (b) the densely settled urban fringe, including both incorporated and unincorporated areas, surrounding these cities.

Other urban places.—The remaining urban population not classified as living "Inside urbanized areas" is classified as living in "Other urban places."

Rural residence.—The remaining population not classified as "Urban" is classified as "Rural." In this report the rural population has been subdivided into "Rural farm" and "Rural nonfarm."

Rural farm.—All rural residents living on farms are classified as "Rural farm." In deciding whether members of a household reside on a farm or ranch, the statement of the household respondent that the house is on a farm or ranch is accepted, with the following exception. A house occupied by persons who pay cash rent for the house and yard only is not counted as a farm or ranch even though the surrounding area is farm land. This special case does not cover: (1) the living quarters of a tenant farmer who rents farm land as well as house and yard; (2) the quarters of a hired hand who receives living quarters on a farm as part of his compensation or (3) separate living quarters inside a structure which is classified as on a farm. In all these cases the living quarters are counted as on a farm.

Rural nonfarm.—The remaining rural population not classified as "Rural farm" is classified as "Rural nonfarm."

Region.—For the purposes of classifying the population by geographic area of residence, the National Health Survey uses the same grouping of states used by the Bureau of the Census and many other agencies. The four major regions are:

<u>Region</u>	<u>States included</u>
Northeast	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania
North Central	Michigan, Ohio, Indiana, Illinois, Wisconsin, Minnesota, Iowa,

South

Missouri, North Dakota, South  
Dakota, Nebraska, Kansas

Delaware, Maryland, District of  
Columbia, Virginia, West Virginia,  
North Carolina, South Carolina,  
Georgia, Florida, Kentucky,  
Tennessee, Alabama, Mississippi,  
Arkansas, Louisiana, Oklahoma,  
Texas

West

Montana, Idaho, Wyoming,  
Colorado, New Mexico, Arizona,  
Utah, Nevada, Washington, Oregon,  
California

# APPENDIX III

## QUESTIONNAIRE

The items below show the exact content and wording of the questionnaire used in the household survey. The actual questionnaire is designed for a household as a unit and includes additional spaces for reports on more than one person.

<p>The National Health Survey is authorized by Public Law 652 of the 84th Congress (70 Stat 489; 42 U.S.C. 305). All information which would permit identification of the individual will be held strictly confidential, will be used only by persons engaged in and for the purposes of the survey, and will not be disclosed or released to others for any other purposes (22 FR 1657).</p>											
<p>Form NUS-1 (3-16-57)</p> <p style="text-align: center;">U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS Acting as Collecting Agent for the U.S. PUBLIC HEALTH SERVICE</p> <p style="text-align: center;"><b>NATIONAL HEALTH SURVEY</b></p>						<p>1. Questionnaire of Questionnaires</p>					
<p>2. (a) Address or description of location</p>						<p>3. Ident. Code</p>	<p>4. Sub-sample weight</p>	<p>5. Sample</p>	<p>6. PSU Number</p>	<p>7. Segment No.</p>	<p>8. Serial No.</p>
<p>(b) Type of living quarters: <input type="checkbox"/> Dwelling unit <input type="checkbox"/> Other</p> <p>(c) Name of Special Dwelling Place</p> <p>(d) Code</p>						<p>9. Is this house on a farm or ranch? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>					
<p>12. Are there any other living quarters, occupied or vacant, in this building (apartment)? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>						<p>10. What is the telephone number here? <input type="checkbox"/> No Phone</p> <p>11. What is the best time to call?</p>					
<p>14. Does anyone else living in this building use YOUR ENTRANCE to get to his living quarters? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>						<p>13. Is there any other building on this property for people to live in - either occupied or vacant? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>					
<p><b>INSTRUCTIONS</b></p> <p>If "Yes" to questions 12, 13 or 14 apply definition of a dwelling unit to determine whether one or more additional questionnaires should be filled and whether the listing is to be corrected.</p>											
<p><b>15. RECORD OF CALLS AT HOUSEHOLDS</b></p>											
Item		1	Com.	2	Com.	3	Com.	4	Com.	5	Com.
Entire household		Date		Date		Date		Date		Date	
Callbacks for individual respondents		Col. No.	Date		Date		Date		Date		
<p><b>16. REASON FOR NON-INTERVIEW</b></p>											
TYPE:		A		B		C		Z			
Reason:		<input type="checkbox"/> Refusal <input type="checkbox"/> No one at home - repeated calls <input type="checkbox"/> Temporarily absent <input type="checkbox"/> Other (Specify)		<input type="checkbox"/> Vacant - Non-seasonal <input type="checkbox"/> Vacant - seasonal <input type="checkbox"/> Usual residence elsewhere <input type="checkbox"/> Armed Forces <input type="checkbox"/> Other (Specify)		<input type="checkbox"/> Demolished <input type="checkbox"/> In sample by mistake <input type="checkbox"/> Eliminated in sub-sample <input type="checkbox"/> Other (Specify)		<p>Interview not obtained for:</p> <p>Code: _____ because:</p>			
<p>Comments on non-interview</p>											
<p>17. Signature of Interviewer:</p>										<p>18. Code:</p>	
<p>Special instructions or notes</p>											
<p><b>EDITING RECORD FOR OFFICE USE ONLY</b></p>											
a. Result of edit		b. Type of follow-up		d. Edited		e. Re-edited		f. Re-edited			
<input type="checkbox"/> Passed <input type="checkbox"/> Passed (EPQ) <input type="checkbox"/> Failed - no follow-up <input type="checkbox"/> Failed - follow-up		<input type="checkbox"/> Office telephone <input type="checkbox"/> Interviewer telephone <input type="checkbox"/> Personal		<p>Editor</p> <p>Date</p>		<p>Editor</p> <p>Date</p>		<p>Editor</p> <p>Date</p>			
c. Result of follow-up		<input type="checkbox"/> Completed <input type="checkbox"/> Non-interview									
<p>1. (a) What is the name of the head of this household? (Enter name in first column)</p> <p>(b) What are the names of all other persons who live here? (List all persons who usually live here, and all persons staying here who have no usual place of residence elsewhere. List these persons in the prescribed order.)</p> <p>(c) Do any [other] lodgers or roomers live here? <input type="checkbox"/> No <input type="checkbox"/> Yes (List) _____</p> <p>(d) Is there anyone else who lives here who is not away on business? On a visit? Temporarily in a hospital? <input type="checkbox"/> No <input type="checkbox"/> Yes (List) _____</p> <p>(e) Is there anyone else staying here now? <input type="checkbox"/> No <input type="checkbox"/> Yes (List) _____</p> <p>(f) Do any of these people have a home elsewhere? <input type="checkbox"/> No (Leave on questionnaire) <input type="checkbox"/> Yes (If not a household member, delete)</p> <p>2. How are you related to the head of the household? (Enter relationship to head, for example: head, wife, daughter, grandson, mother-in-law, partner, lodger, lodger's wife, etc.)</p> <p>3. Race (Check one box for each person)</p> <p>4. Sex (Check one box for each person)</p> <p>5. How old were you on your last birthday?</p> <p>6. Where were you born? (Record state or foreign country)</p> <p>If 14 years old or over, ask:</p> <p>7. Are you now married, widowed, divorced, separated or never married? (Check one box for each person)</p> <p>If 14 years old or over, ask:</p> <p>8. What is the highest grade you completed in school? (Circle highest grade completed or check "None")</p>											
										Last name	
										First name and initial	
										Relationship	
										<input type="checkbox"/> White <input type="checkbox"/> Negro <input type="checkbox"/> Other	
										<input type="checkbox"/> Male <input type="checkbox"/> Female	
										<input type="checkbox"/> Under 1 year <input type="checkbox"/> 1 year	
										(State or foreign country)	
										<input type="checkbox"/> Under 14 years <input type="checkbox"/> Married <input type="checkbox"/> Divorced <input type="checkbox"/> Widowed <input type="checkbox"/> Separated <input type="checkbox"/> Never married	
										<input type="checkbox"/> Under 14 years High: 1 2 3 4 5 6 7 8 High: 1 2 3 4 College: 1 2 3 4 5	

If Male and 14 years old or over, ask:

9. (a) Did you ever serve in the Armed Forces of the United States?  
If "Yes," ask:  
(b) Are you now in the Armed Forces, not counting the reserves?  
(If "Yes," delete this person from questionnaire) →

(c) Was any of your service during a war or was it peace-time only?  
If "War," ask:  
(d) During which war did you serve?  
If "Peace-time" only, ask:  
(e) Was any of your service between June 27, 1950 and January 31, 1955?

If 6 years old or over, ask:  
10. (a) What were you doing most of the past 12 months --  
(For males over 16): working, looking for work, or doing something else?  
(For females over 16): working, looking for work, keeping house, or doing something else?  
(For children 6 - 16): going to school or doing something else?  
If "Something else" checked, and person is 50 years old or over, ask:  
(b) Are you retired?

I Interview each adult person for himself for questions 11-26 and Tables I, II, and A, if he is at home. Enter column number of respondent in each column.

We are interested in all kinds of illness, whether serious or not --  
11. Were you sick at any time LAST WEEK OR THE WEEK BEFORE?  
(a) What was the matter?  
(b) Anything else?

12. Last week or the week before did you have any accidents or injuries, either at home or away from home?  
(a) What were they?  
(b) Anything else?

13. Last week or the week before did you feel any ill effects from an earlier accident or injury?  
(a) What were these effects?  
(b) Anything else?

14. Last week or the week before did you take any medicine or treatment for any condition (besides ... which you told me about)?  
(a) For what conditions?  
(b) Anything else?

15. AT THE PRESENT TIME do you have any ailments or conditions that have continued for a long time? (If "No") Even though they don't bother you all the time?  
(a) What are they?  
(b) Anything else?

16. Has anyone in the family - you, your-, etc., - had any of these conditions DURING THE PAST 12 MONTHS?  
(Read Card A, condition by condition; record any conditions mentioned in the column for the person)

17. Does anyone in the family have any of these conditions? (Read Card B, condition by condition; record any conditions mentioned in the column for the person)

Line Number	Col. No. of person	Question No.	Did you ever talk to a doctor about ...?	What did the doctor say it was? -- did he use any medical terms? (If doctor not talked to - "No," in col. (c) - record respondent's description) (If ill-effects of earlier accident also fill Table A) For an accident or injury occurring during past 2 weeks, ask: What part of the body was hurt? What kind of injury was it? Anything else? (Also, fill Table A) (d-1)	If an impairment or symptom, ask:		What kind of ... trouble is it? (If kind of trouble already entered in col. (d-1), circle "X" without asking the question) (d-4)	What part of the body was affected? (If part of body can be determined from entries in col. (d-1) through (d-4), circle "X" without asking the question) (d-5)	LAST WEEK OR THE WEEK BEFORE did ... cause you to cut down on your usual activities for as much as a day? Check one No Yes (Go to Col. (1)) (e) (f)
					What was the cause of ...? (If cause is already entered in (d-1) circle "X" without asking the question) (If accident or injury, fill Table A) (d-2)	(If eye trouble of any kind and 2 years old or over, ask): Can you read ordinary newspaper print with glasses? (d-3)			
1			<input type="checkbox"/> Yes <input type="checkbox"/> No			X		X	

Line Number	Col. No. of person	Question No.	When did you enter the hospital? (Month, Year)	How many days were you in the hospital, not counting the day you left?	To interviewer:			What was the matter? Anything else? (Record each condition in same detail as called for in Table I. If condition is result of accident or injury, also fill Table A) (h)
					How many of these--days were in the past 12 months?	How many of these--days were during the past 2 weeks, ending last Sunday?	Was this person still in the hospital last Sunday night? (Verify that no home days after Sunday are in col. (d)) (g)	
1			No. _____ Year _____	_____ Days	<input type="checkbox"/> All or <input type="checkbox"/> _____ Days	_____ Days	<input type="checkbox"/> Yes <input type="checkbox"/> No	

Line No. from Table I	1. What part of the body was hurt? What kind of injury was it? Anything else?	Accident happened during past 2 weeks
	2. When did it happen? Month _____ Year _____ (Enter only the year if prior to 1956)	Accident happened during past 2 weeks
	3. Where did the accident happen? <input type="checkbox"/> At home (inside or outside the house) <input type="checkbox"/> While in Armed Services <input type="checkbox"/> Some other place	
	4. Was a car, truck, bus or other motor vehicle involved in the accident in any way? <input type="checkbox"/> Yes <input type="checkbox"/> No	
	5. Were you at work at your job or business when the accident happened? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Under 14 years at time of accident	

FOOTNOTES AND COMMENTS

<b>Card A</b> <b>NATIONAL HEALTH SURVEY</b> <b>Check List of Chronic Conditions</b> <ol style="list-style-type: none"> <li>1. Asthma</li> <li>2. Any allergy</li> <li>3. Tuberculosis</li> <li>4. Chronic bronchitis</li> <li>5. Repeated attacks of sinus trouble</li> <li>6. Rheumatic fever</li> <li>7. Hardening of the arteries</li> <li>8. High blood pressure</li> <li>9. Heart trouble</li> <li>10. Stroke</li> <li>11. Trouble with varicose veins</li> <li>12. Hemorrhoids or piles</li> <li>13. Gallbladder or liver trouble</li> <li>14. Stomach ulcer</li> <li>15. Any other chronic stomach trouble</li> <li>16. Kidney stones or other kidney trouble</li> <li>17. Arthritis or rheumatism</li> <li>18. Prostate trouble</li> <li>19. Diabetes</li> <li>20. Thyroid trouble or goiter</li> <li>21. Epilepsy or convulsions of any kind</li> <li>22. Mental or nervous trouble</li> <li>23. Repeated trouble with back or spine</li> <li>24. Tumor or cancer</li> <li>25. Chronic skin trouble</li> <li>26. Hernia or rupture</li> </ol>	<b>Card C</b> <b>NATIONAL HEALTH SURVEY</b> <b>For:</b> <b>Workers and other persons except Housewives and Children</b> <ol style="list-style-type: none"> <li>1. Cannot work at all at present.</li> <li>2. Can work but limited in amount or kind of work.</li> <li>3. Can work but limited in kind or amount of outside activities.</li> <li>4. Not limited in any of these ways.</li> </ol>	<b>Card E</b> <b>NATIONAL HEALTH SURVEY</b> <b>For:</b> <b>Children from 6 to 16 years old and others going to school</b> <ol style="list-style-type: none"> <li>1. Cannot go to school at all at present time.</li> <li>2. Can go to school but limited to certain types of schools or in school attendance.</li> <li>3. Can go to school but limited in other activities.</li> <li>4. Not limited in any of these ways.</li> </ol>	<b>Card G</b> <b>NATIONAL HEALTH SURVEY</b> <ol style="list-style-type: none"> <li>1. Confined to the house all the time, except in emergencies.</li> <li>2. Can go outside but need the help of another person in getting around outside.</li> <li>3. Can go outside alone but have trouble in getting around freely.</li> <li>4. Not limited in any of these ways.</li> </ol>
<b>Card B</b> <b>NATIONAL HEALTH SURVEY</b> <b>Check List of Impairments</b> <ol style="list-style-type: none"> <li>1. Deafness or serious trouble with hearing</li> <li>2. Serious trouble with seeing, even with glasses</li> <li>3. Condition present since birth, such as cleft palate or club foot</li> <li>4. Stammering or other trouble with speech</li> <li>5. Missing fingers, hand, or arm</li> <li>6. Missing toes, foot, or leg</li> <li>7. Cerebral palsy</li> <li>8. Paralysis of any kind</li> <li>9. Any permanent stiffness or deformity of the foot or leg, fingers, arm, or back</li> </ol>	<b>Card D</b> <b>NATIONAL HEALTH SURVEY</b> <b>For: Housewife</b> <ol style="list-style-type: none"> <li>1. Cannot keep house at all at present.</li> <li>2. Can keep house but limited in amount or kind of housework.</li> <li>3. Can keep house but limited in outside activities.</li> <li>4. Not limited in any of these ways.</li> </ol>	<b>Card F</b> <b>NATIONAL HEALTH SURVEY</b> <b>For: Children under 6 years old</b> <ol style="list-style-type: none"> <li>1. Cannot take part at all in ordinary play with other children.</li> <li>2. Can play with other children but limited in amount or kind of play.</li> <li>4. Not limited in any of these ways.</li> </ol>	<b>Card H</b> <b>NATIONAL HEALTH SURVEY</b> <b>Family income during past 12 months</b> <ol style="list-style-type: none"> <li>1. Under \$500 (including loss)</li> <li>2. \$500 - \$999</li> <li>3. \$1,000 - \$1,999</li> <li>4. \$2,000 - \$2,999</li> <li>5. \$3,000 - \$3,999</li> <li>6. \$4,000 - \$4,999</li> <li>7. \$5,000 - \$5,999</li> <li>8. \$7,000 - \$9,999</li> <li>9. \$10,000 and over</li> </ol>







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Loss of teeth, United States, July 1957-June 1958; statistics on persons who have lost all their permanent teeth, by age, sex, residence, region, race, income, education, time interval since last dental visit, and volume of dental visits. Based on data collected in household interviews during July 1957-June 1958. Washington, U.S. Dept. of Health, Education, and Welfare, Public Health Service, Division of Public Health Methods, 1960.

261p. tables. diagrs. 27cm. (U.S. Health statistics, ser. B22)

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